

Name \_\_\_\_\_ Period \_\_\_\_\_

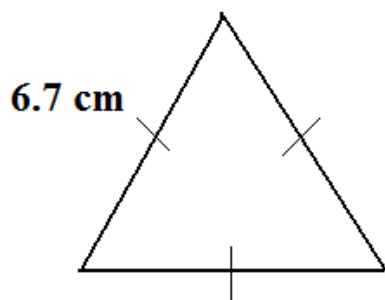
**Geometry Unit 10 Worksheet #6 – Area of Regular Polygons**

**Find the area of a regular polygon. Round answers to the hundredths place. INCLUDE UNITS!!!**

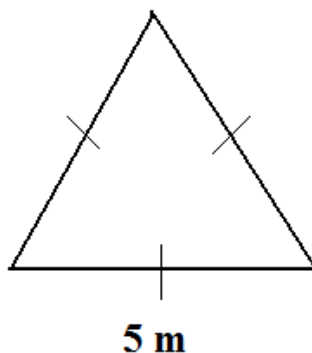
1. Find the area of a regular polygon with an apothem of 12 cm and perimeter of 81.6 cm.
  
2. Find the area of a regular polygons with an apothem of 9 m and a perimeter of 57.6 m.
  
3. Find the perimeter of a regular pentagon with side lengths of 4.4 cm. Then find the area if the apothem has a length of 3 cm.
  
4. Find the perimeter of a regular decagon with sides of 3.7 cm. Then find the area if the apothem has a length of 5.7 cm.
  
5. Find the perimeter of a regular octagon with sides of 10 cm. Then find the area if the apothem has a length of 12.1 cm.
  
6. Find the perimeter of a regular nonagon with sides of 7 cm. Then find the area if the apothem has a length of 9.6 cm.
  
7. Find the perimeter of a regular hexagon with sides of 9.7 m. Then find the area if the apothem has a length of 8.4 m

For #8-10, find the area of the equilateral triangle using the formula for equilateral triangles. Round to the hundredths place. Do not leave the radical in the answer!!!

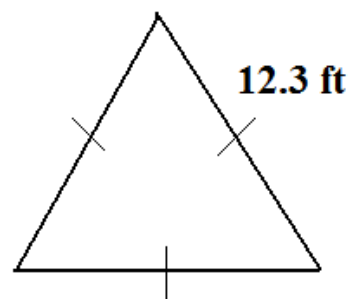
8.



9.

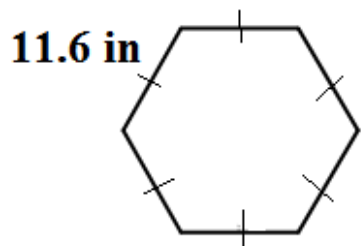


10.

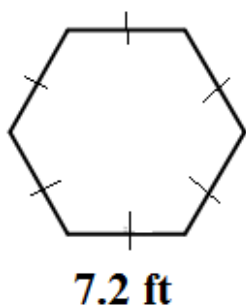


For #11-13, find the area of the regular hexagon. Round to the hundredths place.

11.



12.



13.

